STREET CROSSINGS

Module 3 Part 1: General Principles
At the end of this module, you will be able to:

- Describe how and why people cross the street
- Describe how drivers and pedestrians perceive each other
- Describe principles for users to cross a road safely
- Select midblock vs. intersection locations
- Identify how speed affects pedestrian safety
Why do people cross the street?

Because there’s someplace good on the other side
People shouldn’t have to run to cross a street
Ideally, we’d always cross at locations with positive control
But we can’t provide signals everywhere people cross
These people are not criminals…

- They’re simply trying to deal with a situation
Pedestrian behavior varies: Some use crosswalks, others don’t
Ped behavior varies: some cross midblock (and do so safely)
Ped behavior varies: others cross at signal (and do so safely)
General Principles

1. Pedestrians want & need to cross streets safely
2. Drivers need to understand pedestrians’ intent
3. Keep crossings short
4. Speed Matters
5. Pedestrians will cross where it’s convenient

- Good design makes use of these principles
Principle # 1

Pedestrians want & need to cross the street safely
Principle # 2

Drivers need to understand pedestrians’ intent
Principle # 3

- Keep Crossings Short

Impacts of long crossing distance:
- Increases exposure time
- Increases vehicle-pedestrian conflict
- Increases vehicle delay
- Decreases ability of slower pedestrians to cross
Principle # 4: Speed Matters

- Drivers’ field of vision & ability to see pedestrians
- Drivers’ ability to react and avoid a crash
- Crash Severity

15 MPH
As speed increases, driver focuses less on surroundings
As speed increases, driver focuses less on surroundings
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As speed increases, driver focuses less on surroundings
Speed Affects Crash Avoidance

High speeds equate to greater reaction and stopping distance.
Australian PSA on Speed

- 60 kph vs. 65 kph
- 37 mph vs. 40 mph
Speed Affects Crash Severity

- High speeds lead to greater chance of serious injury & death

Sources:
Killing Speed and Saving Lives, United Kingdom DOT
Vehicle Travel Speeds and Pedestrian Injuries; NHTSA.DOT HS 809 021
Traffic-calming methods such as curb extensions help slow traffic.

Resources:
- PEDSAFE http://www.pedbikesafe.org/PEDSAFE/countermeasures.cfm
- ITE Traffic Calming Library http://www.ite.org/traffic/
Speed Management

- Speed management is the single most effective way to increase safety for all modes.
- Speed limits must be realistic, consistent, and enforceable and able to be adjudicated.
German Speed Management
Comprehensive Speed Management Program

- Policy Development
- Education & Communication
- Speed Countermeasure Program
- Engineering
- Enforcement
- Research & Evaluation
- Partnerships & Outreach
- Judiciary

Policy Development

Comprehensive Speed Management Program

Enforcement

Research & Evaluation

Partnerships & Outreach

Judiciary

Speed Countermeasure Program

Engineering

Education & Communication
Speed Management Guidance and Strategic Initiatives

http://safety.fhwa.dot.gov/speedmgt/


Web-based expert advisor system.
User friendly, logical, and objective.
Calculates speed limit based on site specific information.
http://www2.uslimits.org/
USLIMITS Benefits

- Encourages consistent speed limits;
- Addresses Public and Political awareness acceptance and concern;
- Reduces speed differential;
- Supports the integrity of engineering, enforcement, and adjudication.
Discussion:

- What are your policies & practices regarding setting, enforcing, and adjudicating speed limits?
Principle # 5

Salem OR

Pedestrians will cross where it’s most convenient
How far are you willing to go out of your way for an “improved” crossing?

Would you walk:  25’  50’  75’  100’  125’
What is the relative risk of crossing midblock vs. crossing at an intersection?
Midblock: Pedestrian faces 2 directions of traffic
Intersection: pedestrian must walk out-of-direction
Intersection: pedestrian faces other conflicts
Midblock vs. Intersection

- People choose based on their perceived risk
- The data is inconclusive
Let’s look at the State laws

- Duties of drivers toward pedestrians
- Duties of pedestrians
- Is crossing midblock illegal?
NY Laws governing pedestrian right of way

- § 1151. Pedestrians' right of way in crosswalks.
  
  When traffic-control signals are not in place or not in operation the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk on the roadway upon which the vehicle is traveling, except that any pedestrian crossing a roadway at a point where a pedestrian tunnel or overpass has been provided shall yield the right of way to all vehicles.

- No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impractical for the driver to yield.

- Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.
NY Laws governing pedestrian right of way

- § 1152. Crossing at other than crosswalks.
  Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right of way to all vehicles upon the roadway.

- Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right of way to all vehicles upon the roadway.

- No pedestrian shall cross a roadway intersection diagonally unless authorized by official traffic-control devices; and, when authorized to cross diagonally, pedestrians shall cross only in accordance with the official traffic-control devices pertaining to such crossing movements.
Learning Outcomes: Crossing Principles

You should now be able to:

- Describe how and why people cross the street
- Describe how drivers and pedestrians perceive each other
- Describe principles for users to cross a road safely
- Identify how speed affects pedestrian safety
Questions?